The Role of Admission Documents on the Pricing of UK Fixed Priced IPOs

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Abstract

Using text sentiment analysis, we investigate the impact of the length of prospectuses on IPO pricing for a sample of UK Fixed Priced IPOs between 2004 and 2012 and show more information in the prospectus improves price accuracy as longer admission documents exhibit higher offer price and less underpricing. We explain the effect on the offer price as the consequence of the "pilot fishing" stage which seems to characterize a lot of UK IPOs.

Key Words: Sentiment, fixed-price IPOs, admission document, underpricing, pilot fishing.

1. Introduction

In IPOs, prospectuses represent one of the main source of pre-IPO information. Recent studies examine the link between the pricing of bookbuilt IPOs and the information tone and content of IPO prospectuses. The empirical evidence so far suggests that prospectuses have a significant impact on underpricing, pricing accuracy and after market return volatility for book-built IPOs (Hanley and Hoberg (2010,2012), Loughran and McDonald (2013)).

In this paper, we use text sentiment analysis to investigate whether the length of the IPO prospectuses matters also for fixed priced IPOs by looking at a sample of UK IPOs between 2004 and 2012. The UK IPO market is specific for two main reasons. Firstly, fixed priced offerings still represent a substantial share of the total IPO market and are in fact the most common issuing mechanism for small IPOs typically those listed on the junior segment of the LSE, AIM. During our sample years 320 out of a total of 389 IPOs are fixed-priced offerings. Secondly, in UK IPOs it is typically the case that, prior to setting the price or the price range (depending on the mechanism), the investment bank/adviser contacts a small group of institutional investors in order to gauge their sentiment about the likely valuation of the firm. This stage is called "pre-marketing" or more commonly nowadays "pilot fishing" (Jenkinson et al., 2003). There are no data on pilot fishing as this is a rather informal stage of the IPO process. It is usually not known whether pilot fishing took place or not but we understand that it happens for the a lot of of bookbuilt IPOs and it is not uncommon among fixed priced IPOs. Anecdotal evidence and feedbacks from investment bankers suggest that during pilot fishing, the participating institutional investors are provided with a preliminary prospectus in order to provide then feedbacks to the investment banks at which point the bank/adviser releases the Pathfinder (official prospectus) with the offering price (or the price range for bookbuilt IPOs).

Investigating the impact of length of the prospectus on the pricing of UK fixed priced IPOs could help us shed some light whether pre-marketing does in fact occur for fixed priced offerings. In the absence of "pilot fishing" we should find that the length of the prospectus has no impact on the offer

pricing as there would be no pricing discovery process as in standard fixed priced IPO. Our results however show that longer admission documents lead to higher offer price and smaller underpricing for fixed priced IPOs suggesting that the amount of information provided is indeed used during the pre-marketing stage and results generally in improved pricing accuracy.

There are only a few papers that look at the relation between sentiment and information content of IPO prospectuses and the pricing or performance of IPOs. Loughran and McDonald (2013) examine the relation between the tone of S-1 forms and first day return of US IPOs along with price revisions and trading volatility. They find that underpricing increases as prospectuses contain more uncertain language. In a previous paper, Hanley and Hoberg (2010) classify prospectus information into standard and distinctive depending on how aligned it is with the information of past IPOs within the same industry. For a sample of US IPOs between 1996 and 2005, they documents that IPOs with more distinctive information content benefit from less underpricing and less gross spread. All of these papers study US IPOs and bookbuilt ones. Ours is to the best of our knowledge the first paper that examine the informativeness of IPO prospectus and its impact on pricing accuracy on UK fixed priced IPOs and over a more recent time period.

1. Data and Methodology

We obtain the sample of UK initial public offerings during the period 2004-2012 from Dealogic. To be consistent with existing literature, we apply the standard filters by excluding IPOs from the following industries: Financials, Insurance, Real Estate/Property, and Closed End Funds and with a market value lower than 5 million Euros.

To obtain prospectuses, we carry out searches through Thomson ONE, Factset, and Dealogic and for AIM listed IPOs from the company's website. [1] After removing further 55 IPOs for which the prospectus is not available, our final sample consists of 320 fixed priced UK IPOs. To perform word content analysis, we first manually parse each prospectus into two text files, one for the whole

[1] AIM Rule 26 introduced in February 2007 ensures that issuing companies maintain a webpage where admission documents are stored.

document and one for the risk factors section only, and construct a measure of length of the prospectus by taking the natural logarithm of the total number of words of each of these two sections.

To investigate our research question we then run the following regression models:

$$Underpricing/Offer\ Price = \alpha + \beta_1\ Length\ Variables +$$

$$\beta_2\ VC\ backed + \beta_3\ Log\ (Proceeds) + \beta_4\ AIM + \beta_5\ Internet + \beta_6\ Underwriter\ Share + \beta_7$$

$$log(1+Age) + \beta_8\ Pre\text{-}IPO\ Market\ Average + Industry\ Dummies + Year\ Dummies \quad (2)$$

where the *Underpricing* is the percentage change from offer price to first day closing price and the *Offer Price* is the final price stated in the published Pathfinder. Our coefficient of interest is β_1 that captures the effect of length of the admission document on our dependent variables.

We include other standard control variables such as whether or not the firm is VC backed, list on the AIM or is an internet company; the (natural logarithm of) IPO P*roceeds* and company *Age* and underwriter's reputation measured by the *Underwriter share* defined as the log of past year's market share in dollars amount. We also include industry dummies, year dummies and a *Pre-IPO Market Average* defined as the mean AIM index return over the 30 day trading period before the issue date (Loughran and Ritter 2004) to control for market and industry conditions.

Empirical Results

Table 1 presents the distribution of IPOs across time and industry. The number of IPOs unsurprisingly declines sharply after the 2008 financial crisis. Fixed-priced (FP) IPOs are 82% of the total number of UK IPOs in our sample period and the share of FP IPOs is stable across the sample period suggesting that the UK IPO market remains dominated by fixed-pricing issuing mechanism. Summary statistics for our variables of interest are reported in Table 2. The majority is listed on the AIM and the length of prospectuses does present some variability. We also note that the mean (median) underpricing is 10% (8%) which relatively small for FP IPOs.

First Day Underpricing

In table 3, we present the baseline OLS results for the relation between the length of the admission document and IPO underpricing. The results show that longer admission documents and longer risk factor sections do significantly reduce the IPO underpricing of fixed-priced offerings. The effect is statistically significant at 1 per cent level.

Offer Price

Table 4 looks at prospectus length and its impact on the offer price. We find that the length of the whole prospectus as well as of the risk factor section increases the offer price - opposite sign compared to the results on underpricing - and the coefficient estimates are all statistically and economically significant. These results are quite surprising as by construction the offer price of fixed price IPOs should be already indicated in the prospectus and hence it should not be affected by its length or content. We interpret these results as a confirmation that fixed price IPOs, very much like open price IPOs, are preceded by an "investor education" or *pilot fishing* phase during which preliminary prospectuses, that do not contain yet any price information, are circulated among a small pool of institutional investors after which the offer price is set.

3. Conclusion

In this paper, we perform text analysis for the admission documents of a sample of UK fixed price IPOs between 2004 and 2012 to examine the pricing effects of the length of prospectuses. Overall our findings suggest that the market value more information in the admission document which generally improve pricing accuracy in contrast to existing results on bookbuilt IPOs. We explain our results on the offer price as indicating that fixed price IPOs are likely to be characterized by a pilot fishing stage which helps price discovery and provides a rationale for the role of the admission document.

References

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Table 1. Frequency distribution IPOs over time and industry

Panel A. *IPO frequencies by year*

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
All IPOS	21	116	96	73	14	2	33	17	17	389
FP IPO	21	94	84	59	12	2	24	12	12	320
Percentage	1.00	0.81	0.88	0.81	0.86	1.00	0.73	0.71	0.71	0.82

This panel shows number of IPOs per each year during the sample period (2000-2012).

Table 2. Summary statistics

	Fixed-Priced IPOs		
Variable	Mean	Std	Median
Underpricing	0.10	0.10	0.08
Offer Price	1.03	0.72	0.96
Trading Volume	5.70	2.23	5.77
VC Backed	0.08	0.27	0.00
Deal amount (million €)	32.42	43.23	16.10
AIM (%)	0.95	0.22	1.00
Internet Dummy	0.07	0.25	0.00
Underwriter Share	4.74	2.16	4.77
Company Age	4.12	7.53	1.00
Market return	0.01	0.22	0.06
Whole Document Total words	49178.02	2 6357.08	42704.50
Risk Factors (RF) Total words	3887.05	2913.42	3114.00

The sample includes 320 fixed-priced completed during 2004-2012. All variables are defined in Section 1

Table 3. Underpricing and admission documents

Section	Document Length	VC backed	Log Net proceeds	AIM Dummy	Internet Dummy	Log Und. Share	Log Firm Age	Market Return	Intrcpt.	Year & Industry	R-sqr
					Fixed-priced IPOs						
All	**-0.076**	**0.077**	-0.004	**-0.044**	0.012	-0.003	-0.001	**0.096**	0.970	YES	0.18
	(-3.65)	(2.77)	(-0.76)	(-1.97)	(0.62)	(-1.04)	(-0.36)	(3.11)	(4.12)		
RF	**-0.057**	**0.068**	-0.001	-0.029	0.024	**-0.004**	-0.004	**0.097**	0.612	YES	0.22
	(-6.76)	(2.50)	(-0.20)	(-1.46)	(1.34)	(-1.70)	(-0.78)	(3.40)	(7.41)		

See Section 1for all variable definitions.

Table 4: Offer price and admission documents

Section	Document Length	VC backed	Log Net Proceeds	AIM Dummy	Internet Dummy	Log Und. Share	Log Firm Age	Market Return	Intrcpt.	Year & Industry	R-sqr
					Fixed-priced IPOs						
All	**0.256**	**-0.190**	**0.223**	0.045	-0.069	**0.041**	0.022	0.016	**-2.615**	YES	0.28
	(2.07)	(-1.74)	(4.32)	(0.32)	(-1.03)	(2.04)	(0.53)	(0.08)	(-1.96)		
RF	**0.260**	-0.165	**0.200**	0.013	-0.133	**0.043**	0.031	0.005	**-1.988**	YES	0.30
	(2.61)	(-1.52)	(4.12)	(0.10)	(-1.71)	(2.32)	(0.76)	(0.02)	(-2.34)		

See Section 1for all variable definitions.